

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte LUCIUS GREGORY MEREDITH, MARC LEVY,
BRIAN BECKMAN, ANTHONY ANDREWS, BIMAL MEHTA, and
MITRA KANCHAN

Appeal 2007-0250
Application 09/560,371
Technology Center 2100

Decided: May 2, 2007

Before JOSEPH F. RUGGIERO, JOSEPH L. DIXON and LANCE
LEONARD BARRY, *Administrative Patent Judges*.

BARRY, *Administrative Patent Judge*.

I. STATEMENT OF THE CASE

A Patent Examiner rejected claims 8-25. The Appellants appeal therefrom under 35 U.S.C. § 134(a). We have jurisdiction under 35 U.S.C. § 6(b).

A. INVENTION

The invention at issue on appeal binds a business workflow process schedule to specific technologies for use in "real world applications."

(Specification 1.) Many business processes can be represented as a sequence of transactions called "workflows." (*Id.* 2.) In conventional business workflow systems, a transaction comprises a sequence of operations that change recoverable resources and data from one state into another. Current business workflow software systems provide scheduling software that requires binding within the scheduling to couple the schedule to real world applications and technologies. (*Id.*)

Unfortunately, assert the Appellants, current schedule software requires modification of each schedule for different technologies. (*Id.*) More specifically, they add, the associated business workflow language contains the binding, and the binding is specific for the technology being implemented. The use of a business workflow model across different technologies requires modification to the binding tailored to the implemented technology. (*Id.* at 3.)

In contrast, the Appellants assert that their invention separates business workflow processes and binding, so that the same business workflow process can be implemented across technologies. More specifically, the binding maps ports and messages to corresponding units of code and invocations of a particular technology being utilized for the modeling of the business workflow process. This can be accomplished by providing technology specific descriptions within the binding that can be translated by the binding and defining ports and messages to be used by the business workflow process within the binding. (*Id.*)

Claim 8, which further illustrates the invention, follows.

8. A system that facilitates modeling of business processes comprised of a plurality of business operations, comprising:

a computer-readable medium; and

a plurality of computer-executable files comprising:

a scheduling component that employs a dataflow diagram to define a flow of business operations, the dataflow diagram includes actions coupled via data flowing between them, wherein the scheduling component employs XML programming language; and

a binding component that binds the plurality of business operations through a schedule message, a port connection, a port and a message interface with a component outside of the dataflow diagram, wherein the binding component employs XML programming language.

B. REJECTION

Claims 8-25 stand rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,930,512 ("Boden") and U.S. Patent No. 6,598,219 ("Lau").

II. CLAIM GROUPING

When multiple claims subject to the same ground of rejection are argued as a group by appellant, the Board may select a single claim

from the group of claims that are argued together to decide the appeal with respect to the group of claims as to the ground of rejection on the basis of the selected claim alone. Notwithstanding any other provision of this paragraph, the failure of appellant to separately argue claims which appellant has grouped together shall constitute a waiver of any argument that the Board must consider the patentability of any grouped claim separately.

37 C.F.R. § 41.37(c)(1)(vii) (2005).¹

Here, the Appellants argue claims 8-24, which are subject to the same ground of rejection, as a group. (Br. 4-6.) Therefore, we select claim 8 as the sole claim on which to decide the appeal of the group.

"[I]t is inappropriate for appellants to discuss in their reply brief matters not raised in . . . the principal brief[]. Reply briefs are to be used to reply to matter raised in the brief of the appellee." *Kaufman Company, Inc. v. Lantech, Inc.*, 807 F.2d 970, 973 n. 1 USPQ2d 1202, 1204 n. 1 (Fed. Cir. 1986). "Considering an argument advanced for the first time in a reply brief . . . is not only unfair to an appellee . . . but also entails the risk of an improvident or ill-advised opinion on the legal issues tendered." *McBride v. Merrell Dow and Pharmaceuticals, Inc.*, 800 F.2d 1208, 1211 (D.C. Cir. 1986) (internal citations omitted).

Here, as aforementioned, the Appellants chose to argue the patentability of claims 8-24 as a group in their Appeal Brief. (Br. 4-6.) In their Reply Brief, however, the Appellants argued the distinct limitations of

¹ We cite to the version of the Code of Federal Regulations in effect at the time of the Appeal Brief.

claims 16 and 22. (Reply Br. 3.) These arguments, which were presented for the first time in the Reply Brief, are untimely and will not be considered. By not presenting separate arguments thereto in their original brief, the Appellants elected to have claims 9-24 stand or fall with claim 8. With this representation in mind, rather than reiterate the positions of the parties *in toto*, we focus on the two issues.

III. BINDING OPERATIONS WITH A COMPONENT OUTSIDE A DATAFLOW DIAGRAM

The Examiner finds that in Boden "because the graphically displayed activities *invoke* (emphasis added) computer-based applications designated for *supporting* (emphasis added) the business operations represented by the activities, the program applications are thus 'outside' or otherwise separated from the dataflow diagram, since it becomes clear that the activities in the diagram are not capable of performing the required steps themselves." (Answer 13.) The Appellants argue, "Using programs derived from outside a diagram to run activities does not remove the activities outside the dataflow diagram." (Reply Br. 4.) Therefore, the issue is whether Boden would have suggested binding operations depicted via a dataflow diagram with a component outside the dataflow diagram.

In addressing the issue, the Board conducts a two-step analysis. First, we construe the representative claim at issue to determine its scope. Second, we determine whether the construed claim would have been obvious.

A. CLAIM CONSTRUCTION

Our analysis begins with a key question: what is the invention claimed? In answering the question, "the PTO gives claims their 'broadest reasonable interpretation.'" *In re Bigio*, 381 F.3d 1320, 1324, 72 USPQ2d 1209, 1210-11 (Fed. Cir. 2004) (quoting *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1668 (Fed. Cir. 2000)). "Moreover, limitations are not to be read into the claims from the specification." *In re Van Geuns*, 988 F.2d 1181, 1184, 26 USPQ2d 1057, 1059 (Fed. Cir. 1993) (citing *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989)).

Here, claim 8 recites in pertinent part the following limitations: "a scheduling component that employs a dataflow diagram to define a flow of business operations . . . and a binding component that binds the plurality of business operations . . . with a component outside of the dataflow diagram. . . ." The representative claim does not define the term "outside." Giving the representative claim the broadest, reasonable construction, therefore, the limitations merely require binding operations depicted via a dataflow diagram with a component that is somehow outside the dataflow diagram.

B. OBVIOUSNESS DETERMINATION

"Having determined what subject matter is being claimed, the next inquiry is whether the subject matter would have been obvious." *Ex Parte Massingill*, No. 2003-0506, 2004 WL 1646421, at *3 (B.P.A.I. 2004). The question of obviousness is "based on underlying factual determinations including . . . what th[e] prior art teaches explicitly and inherently. . . ." *In re Zurko*, 258 F.3d 1379, 1383, 59 USPQ2d 1693, 1696 (Fed. Cir. 2001) (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966); *In re Dembiczak*, 175 F.3d 994, 998, 50 USPQ2d 1614, 1616 (Fed. Cir. 1999); *In re Napier*, 55 F.3d 610, 613, 34 USPQ2d 1782, 1784 (Fed. Cir. 1995)). "A *prima facie* case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art." *In re Bell*, 991 F.2d 781, 783, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993) (quoting *In re Rinehart*, 531 F.2d 1048, 1051, 189 USPQ 143, 147 (CCPA 1976)).

Here, Boden uses a "workflow model to automate business processes[.]" (Col. 1, ll. 21-22.) The reference defines "[a] process [a]s a sequence of activities that must be completed to accomplish a task," (col. 4, ll. 55-56), and explains that "[a] workflow model is a complete representation of [such] a process, comprising a process diagram and the settings that define the logic behind the components of the diagram." (*Id.* ll. 16-18.)

For its part, "a process diagram uses symbols to represent the activities that make up the process." (*Id.* ll. 28-29.) For example, "FIG. 1 [of the

reference] is a process diagram for a life insurance workflow model." (Col. 3, ll. 5-6.) Because "[t]he possible ways that . . . data can flow through a model are represented graphically by arrows called connectors," (col. 4, ll. 30-32), we find that Boden's process diagram constitutes a dataflow diagram. Because "[a]n activity is a step within a process," (col. 5, l. 6), which "represents a piece of work that the assigned person can complete by starting a program or another process," (*id.* ll. 6-8), we further find that the activities depicted via the reference's process diagram constitute operations.

Boden also explains that "[a] program activity has a program assigned to perform it. The program is invoked when the activity is started[.]" (*Id.* ll. 22-23.) We agree with the Examiner's finding that the reference's process "diagram does not physically show any representation of the programs to be invoked." (Answer 14.) Because "nothing [i]n the diagram represents the programs," (*id.*), we further agree with the Examiner's finding that "the programs must be 'outside' of the diagram, and are bound to the activities via a binding interface." (*Id.*)

IV. XML

The Examiner finds, "Lau was brought in to show that the replacement of one markup language (HTML) with a different markup language (XML) would have been an obvious modification, in which case generic advantages of the XML language would be sufficient motivation to combine the references." (Answer 15.) The Appellants argue, "It is not obvious to one of

ordinary skill in the art to employ the XML language to a scheduling component and a binding component simply because Lau appears to discuss the generic advantages of the language with respect to individual data elements." (Br. 6.) Therefore, the issue is whether those skilled in the art would have been motivated to employ XML in a workflow model.

"The presence or absence of a motivation to combine references in an obviousness determination is a pure question of fact." *In re Gartside*, 203 F.3d 1305, 1316, 53 USPQ2d 1769, 1776 (Fed. Cir. 2000) (citing *In re Dembiczak*, 175 F.3d 994, 1000, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999)). A suggestion to combine teachings from the prior art "may be found in explicit or implicit teachings within the references themselves, from the ordinary knowledge of those skilled in the art, or from the nature of the problem to be solved." *WMS Gaming Inc. v. Int'l Game Tech.*, 184 F.3d 1339, 1355, 51 USPQ2d 1385, 1397 (Fed. Cir. 1999) (citing *In re Rouffet*, 149 F.3d 1350, 1355, 47 USPQ2d 1453, 1456 (Fed. Cir. 1998)).

Here, Boden employs "the HyperText Markup Language (HTML)." (Col. 2, ll. 11-12.) For its part, Lau explains that HTML is subset of the Standardized Generalized Markup Language ("SGML"). (Col. 2, ll. 39-40.) The secondary reference further explains that the Extensible Markup Language ("XML") is also a subset of SGML, (*id.* ll. 37-38), and that XML offers advantages over HTML. Specifically, "unlike . . . Hypertext Markup Language (HTML), XML permits (i) users to add new defined tags to the tag set at will; and (ii) XML documents to be properly nested within one another

to an arbitrary extent." (*Id.* ll. 39-43.) Furthermore, the Appellants admit that "[o]pen standard [sic] allows different users to be able to recognize the code, which is an advantage of using XML." (Br. 6.) Because HTML and XML are both subsets of SGML, and XML offers advantages over HTML, we agree with the Examiner's finding that those skilled in the art would have been motivated to employ XML in a workflow model.

The Appellants' Reply Brief presents the following new arguments.

Structuring the invention using XML is not a simple process where one can plainly switch from HTML to XML. . . . The implementation of XML affects the integral configuration of the product, such as enabling one to specify the ordering of individual actions, as well as enabling one to perform binding in a separate routine. (See pg. 22, ll. 5-16).

(Reply Br. 6.) We find nothing in the Examiner's Answer that would have prompted the new arguments. These arguments could have been made in the Appeal Brief. The term "Reply Brief" is exactly that, a Brief in reply to new rejections or new arguments set forth in an Examiner's Answer. The Appellants may not present their arguments in a piecemeal fashion, holding back arguments until an Examiner answers their original Brief. Of course, the Appellants are not precluded from presenting new arguments directly to the Examiner for consideration as part of a continuing application.

Furthermore, "[a]rgument in the brief does not take the place of evidence in the record." *In re Schulze*, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965) (citing *In re Cole*, 326 F.2d 769, 773, 140 USPQ 230, 233

(CCPA 1964)). Here, the Appellants do not proffer any evidence to support their allegation that one cannot "plainly switch from HTML to XML."

(Reply Br. 6.) Therefore, we affirm the rejection of claim 8 and of claims 9-24, which fall therewith.

Regarding claim 25, the Appellants also argue, "Boden *et al.* and Lau, alone or in combination, fail to teach or suggest the utilization of XML with respect to the scheduling and binding module, let alone for the *link* between the file with business operations and the plurality of disparate business implementations." (Br. 6.) Because this argument is based on a premise that that it is not obvious to one of ordinary skill in the art to employ the XML language to a scheduling component and a binding component, a premise we rejected, *supra*, we are unpersuaded by the argument. Therefore, we affirm the rejection of claim 25.

V. CONCLUSION

In summary, the rejection of claims 8-25 under § 103(a) is affirmed. "Any arguments or authorities not included in the brief or a reply brief filed pursuant to [37 C.F.R.] § 41.41 will be refused consideration by the Board, unless good cause is shown." 37 C.F.R. § 41.37(c)(1)(vii). Accordingly, our affirmance is based only on the arguments made in the Briefs. Any arguments or authorities omitted therefrom are neither before us nor at issue but are considered waived. *Cf. In re Watts*, 354 F.3d 1362, 1367, 69 USPQ2d 1453, 1457 (Fed. Cir. 2004) ("[I]t is important that the applicant

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challenging a decision not be permitted to raise arguments on appeal that were not presented to the Board.")

No time for taking any action connected with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

tdl/gw

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